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Heads of Agency ISS News Conference

A Panel Consisting of:

MICHAEL GRIFFIN, Administrator,
National Aeronautics and Space Administration

KEIJI TACHIKAWA, Japanese Space Agency

ANATOLY PERMINOV, Russian Space Agency

JEAN-JACQUES DORDAIN, Director-General,
European Space Agency

VIRENDA JHA, Canadian Space Agency

[Moderated by Dean Acosta]

1:00 p.m. through 1:50 p.m., EST
Thursday, March 2, 2006

Kennedy Space Center

[TRANSCRIPT PREPARED FROM A WEBCAST RECORDING.]

1 P R O C E E D I N G S

2 ADMINISTRATOR GRIFFIN: [In progress] -- on the
3 final configuration of the International Space Station with
4 no major changes from the configuration you have come to
5 know and love.

6 The budget in the United States and the plans for
7 the fly-out of the Space Shuttle Program support those
8 agreements. The budget of this President supports those
9 agreements.

10 In that vein, then, we look forward to future
11 success in returning the Shuttle to flight, completing the
12 assembly of the Space Station, using the Space Station to
13 generate the kind of data and information that will enable
14 our program of Exploration to return to the Moon and
15 continue on to Mars after we have completed the station,
16 and in so doing -- [webcast audio break] -- of the member
17 nations as we have been doing and as we hope to continue to
18 do.

19 So it was a good meeting, a very enjoyable time
20 to be here, and with that, I think I will finish and turn
21 it over to Virendra from Canadian Space Agency.

22 MR. JHA: Thank you, Mr. Griffin.

1 Good afternoon. From the Canadian Space Agency
2 point of view, the meeting was very fruitful and
3 successful. We are very pleased that the new assembly
4 sequence meets our needs and those of all other
5 international partners.

6 We have agreed roughly the timelines for the
7 launch of the remaining portions of the Canadian robotic
8 systems, which is contributing to the construction and
9 maintenance of the Space Station. We are very proud of our
10 contribution. We are also looking forward to the
11 resumption of the Shuttle flights and the upcoming flights
12 of our Canadian astronauts.

13 We, as we did in the meeting, fully endorse the
14 conclusions reached in this meeting and fully support the
15 statements which have been released as joint statements.

16 Thank you.

17 MODERATOR: Mr. Dordain?

18 MR. DORDAIN: Yes. Thank you.

19 So I understand that today is another important
20 step towards our consolidated partnership of the
21 International Space Station.

22 Last December in Europe, we have got renewed

1 commitments from the ESA member states. We have got
2 budgets. We have the willingness to cooperate among the
3 partners, and as of today, we have a plan, a detailed plan
4 which is realistic and which balances the technical and
5 programmatic risks. So now we have -- just to deliver, we
6 have now some technical milestones in front of us, and as
7 far as ESA is concerned, our short-term technical
8 milestones are, number one, to deliver the Columbus
9 Laboratory to Kennedy Space Center end of May this year,
10 and we have to launch the ATV cargo vehicle in May next
11 year.

12 So we appreciate the results of this meeting. We
13 appreciate the efforts which have been made by NASA to put
14 back the Shuttle flight as well as we appreciate the
15 Russian efforts to maintain the exploration of the
16 International Space Station based on Soyuz and Progress.

17 As you can see, the most important result of this
18 International Space Station is partnership, and each time
19 we meet, I think that we consolidated that partnership.

20 DR. TACHIKAWA: First of all, I would like to
21 express my sincere appreciation to NASA for hosting this
22 Heads of Agency meeting here.

1 It really was an important milestone for
2 resumption of the International Space Station assembly and
3 its eventual completion and stresses the international
4 element launches.

5 We had heard for discussion today, and we
6 endorsed our configuration and assembly sequence as well as
7 plans to operate and utilize the International Space
8 Station in international [inaudible].

9 I confirmed that we endorse the ISS assembly
10 sequence in which the IP element launches were advanced and
11 resulted in the minimum impact on the JEM, Japanese module,
12 today. I expect the new assembly sequence be implemented
13 as planned.

14 In Japan, JAXA has been steadily preparing for
15 JEM operations and the utilization, and it is processing
16 with HTV development.

17 Thank you very much.

18 MR. PERMINOV: [through interpreter] Thank you.

19 The Russian side today has fully supported the
20 decisions made on the assembly sequence of the
21 International Space Station and configuration.

22 We are very thankful, and we are welcoming the

1 efforts of our U.S. colleagues on launching of the
2 international elements to the international space station.

3 We have made an agreement with the U.S. side that
4 the Russian science power platform will not be delivered by
5 the U.S. side. However, the American side will make up for
6 it by providing power to the Russian segment from the U.S.
7 segment, starting with next year and after year 2015.

8 Today, we have announced a number of proposals,
9 and those proposals were addressed to the NASA management
10 and other partners. So those proposals have been well
11 heard and well received.

12 In general, I estimate today's meeting as a very
13 successful one because we have adopted the plan with very
14 specific actions and very specific dates.

15 Thank you very much.

16 MODERATOR: All right. That will conclude the
17 opening remarks.

18 Now we will go to the question-and-answer
19 session. We will open with questions here at Kennedy Space
20 Center, and then we will go around to the different centers
21 that have media members also watching over NASA television.

22 Let's go ahead and start right here with Craig.

1 QUESTIONER: Craig Cavault with Aviation Week.

2 For Jean-Jacques and Mr. Tachikawa, has the
3 assembly sequence moved both Columbus and JEM earlier in
4 the schedule?

5 And for Mike Griffin, where does the JEM and
6 Columbus fall now relative to a Hubble servicing?

7 MR. DORDAIN: The Columbus Laboratory will be
8 launched according to the sequence that we have approved
9 today. The Columbus Laboratory will be launched on the
10 seventh flight of the Space Shuttle, which means earlier
11 launch in the sequence of the Space Shuttle flights, and I
12 must say we appreciate the priority that all partners, and
13 especially NASA, has put on the launch of Columbus.

14 MODERATOR: Mike, did you want to comment on
15 that?

16 ADMINISTRATOR GRIFFIN: I was waiting until Dr.
17 Tachikawa had a chance to respond to Craig's question.

18 DR. TACHIKAWA: Thank you. I speak in Japanese.

19 [Through interpreter] Talking of Japanese module
20 called JEM, J-E-M, we had a fortunate situation to have one
21 flight advanced. In other words, we have three modules
22 altogether, and the first one will be launched on the

1 eighth flight. And following that, the other two modules
2 would be launched on the ninth and twelfth flights. I do
3 feel that this is very encouraging if all those three
4 modules will be launched as scheduled.

5 ADMINISTRATOR GRIFFIN: And my comment in
6 response to your question is the Space Telescope Servicing
7 Mission, again, if we conclude that we are able to perform
8 it, is, of course, not linked to Station assembly. So I
9 regard the scheduling of the Hubble flight as being
10 primarily a technical matter that will be best determined
11 by looking at the needs of the telescope and frankly the
12 details of the actual timing of the assembly sequence. So
13 that will be settled largely within Space Ops under Bill
14 Gerstenmaier, but this is an issue that has visibility at
15 may level. I've paid a lot of attention to Hubble over the
16 years, and I will be working with Bill to pick a schedule
17 for that flight that best works within the confines of the
18 Station assembly sequence and best works for the Hubble.

19 Right now, we are looking at something in
20 possibly early '08, but, you know, final details to follow.

21 The first of those details is the issue of whether we can
22 do that mission at all, and I have consistently said, you

1 know, we need to get the Return to Flight sequence behind
2 us before we can get to any other details.

3 MODERATOR: Also for media members to know, we
4 are working on an updated diagram of the configuration and
5 assembly sequence. So we will get that out to you shortly
6 after this press conference sometime in the near future.
7 So we will get that to you to help clear things up.

8 All right. Next question, let's go to Jay, Jay
9 Barbree.

10 QUESTIONER: Dr. Griffin, if you can launch the
11 first assembly flight August 28th and you have no setbacks,
12 when do you expect to complete the Space Station, and how
13 many assembly flights are you looking at now?

14 ADMINISTRATOR GRIFFIN: If we launch as given the
15 constraints that you say, then with no setbacks, 16 flights
16 are required to assemble the Station, and we would finish
17 sometime early in fiscal '10. So we have, we believe,
18 substantial schedule margin to complete our job.

19 MODERATOR: Next question, right up front.

20 QUESTIONER: Randy Segal, WSTU Radio.

21 This will go to Mike and Mr. Perminov. With the
22 changing of the order and advancing certain parts, I would

1 assume we would need to increase the crew size aboard the
2 International Space Station a little bit quicker than may
3 have been intended. What plans do you have currently to
4 increase the size and the number of people on board the ISS
5 to take care of the science necessary with the new modules?

6 ADMINISTRATOR GRIFFIN: Well, the crew size goes
7 to three with STS-121 and then to six in the 2009 time
8 frame. You know, again, we're going to -- some of these
9 questions could be more easily settled when you get a
10 chance to look at the assembly sequence and the scheduling
11 of the manifest that we are going to give you very shortly,
12 but don't have available for this press conference, but no
13 major surprises there.

14 MODERATOR: Yeah. I think that will help answer
15 a lot of questions once we get that to you.

16 Okay. Let's go, second row, right behind, next
17 to Jay.

18 QUESTIONER: Dan Billow, WESH TV.

19 For Dr. Griffin, would you discuss and sort of
20 review what the level of U.S. participation in the ISS will
21 be after 2010 and also tell us whether any U.S. hardware
22 will be left on the ground?

1 ADMINISTRATOR GRIFFIN: I'm not going to
2 speculate about what we are going to do post 2010 with the
3 Station at this point. I'm not the best guy to do that.
4 I'll let you get with Bill Gerstenmaier later on.

5 It is our plan to fly most of the U.S. hardware
6 and, in fact, everybody's hardware. The Station will be
7 completed.

8 MODERATOR: Let's go to Todd.

9 QUESTIONER: Todd Halberson of Florida Today.
10 One for Mike Griffin and one for Mr. Perminov.

11 Mike, can you tell us what the trades were in
12 advancing the International Partner Laboratories? In other
13 words, do you push back the electrical power, or is less
14 electrical power going to be available to the International
15 Partner Labs as a result of moving them up or at least
16 initially?

17 And for Mr. Perminov, I am wondering if you could
18 go over for us what proposals you made to the partners
19 during the meetings this week.

20 ADMINISTRATOR GRIFFIN: I will go first. Again,
21 same answer as I just gave. When we are going to get down
22 into the details of the assembly sequence, I'd rather let

1 you work with our head of Space Ops, Bill Gerstenmaier, on
2 that. We certainly are not going to put up modules,
3 however, that cannot be appropriately supported with power
4 and thermal conditioning by the infrastructure elements of
5 the Station, and again, I will let you pursue further
6 details as long as you and Bill can stand each other.

7 And, Mr. Perminov, I will defer now to you, sir.

8 MR. PERMINOV: [through interpreter] Thank you.

9 According to the configuration of those decisions
10 which have been adopted today, I would like to confirm the
11 words of Dr. Griffin here today that the Russian module
12 will be provided by the power from the U.S. module, and
13 that power level will be sufficient, and it will go on like
14 that until 2015.

15 As far as any specifics or any specific details
16 of the contracts and different documents are concerned, we
17 haven't really signed anything. We are still working on
18 the details of those documents, and they will be signed in
19 the nearest time during this year.

20 I have also made some proposals with regard to
21 the transportation flow to the ISS and cargo flow to the
22 ISS. I have proposed to make a stock of vehicles of Soyuz

1 and Progress vehicles, and also there have been a number of
2 other issues which I have raised which we have decided to
3 walk through during this year.

4 Thank you.

5 MODERATOR: All right. We are now going to take
6 a break from questions here and go to Headquarters in
7 Washington, D.C. We will come back to Kennedy Space Center
8 for further questions in just a moment.

9 We will start off at Headquarters. Again, please
10 announce who you are and what your affiliate is and who
11 your question is for.

12 QUESTIONER: Keith Cowing at NASAWatch.com.

13 A question for Dr. Griffin and Mr. Perminov. In
14 a few months, a cosmonaut is going to go out and do an EVA
15 and knock a golf ball off of the International Space
16 Station. At the same time, NASA is going to be canceling a
17 significant amount of research that was going to be done on
18 the Space Station, research that was promised for decades
19 and indeed was cited as the reason for doing it. In
20 addition, space science is being cut back, as we just heard
21 in a hearing a few minutes ago up on Capitol Hill to pay
22 for this.

1 Is this the right message to be sending to
2 taxpayers in America, Russia, Europe, and Japan that it's
3 okay to do a stunt like this, but cutting back on the
4 science, and indeed, is this worth the billions of dollars
5 and rubles and yen and euros that have been spent on this
6 project where stunts are more important than science?

7 ADMINISTRATOR GRIFFIN: No one is saying that
8 stunts are more important than science. We are doing all
9 of the science that our budget allows us to do, and I think
10 you know that quite well because we have had previous
11 discussions on this.

12 If we had a bigger budget, we would do more
13 science. We are doing what we can.

14 In fact, the partners, per the terms of the
15 intergovernmental agreements, have the right to propose and
16 to conduct commercial activities on the Station, provided
17 that all appropriate safety considerations have been dealt
18 with. We are not at the end of that particular road as
19 yet, but we will pursue it. But should there not be a
20 safety issue, then the effort proposed by Roskosmos is a
21 revenue-generating opportunity, not a source of
22 expenditures, and so I do not see it as being opposed to

1 scientific or engineering research at all.

2 MODERATOR: Mr. Perminov?

3 MR. PERMINOV: [through interpreter] To confirm
4 the decisions which have been taken in that regard,
5 definitely right now our priority -- and as correctly said,
6 our priority remains to deliver the hardware to the
7 Station. However, due to the delivery of that hardware and
8 scientific modules, that will give us a better chance to
9 continue and to develop well the scientific programs on the
10 Station, conduct more research.

11 I think it will get better for all of us if those
12 modules which are planned to be delivered will be delivered
13 there as soon as possible, and if we push that schedule to
14 the left, that will be to all of our benefit in terms of
15 the scientific research.

16 Thank you.

17 MODERATOR: Okay. I think we have one more
18 question at Headquarters, and then we will go on to
19 Marshall next.

20 QUESTIONER: Yoshimoto [ph] from Kyoto News for
21 Mr. Tachikawa. Please allow me to ask him questions in
22 Japanese. [Speaking Japanese language.]

1 DR. TACHIKAWA: [Speaking Japanese language.]

2 THE INTERPRETER: The questioner said the
3 following:

4 I am Yoshimoto of Kyoto News Agency. Let me ask questions
5 in Japanese. You talked about there was three
6 flights, and could you tell us in which years
7 those flights or launches are scheduled right
8 now? I'd like to hear that; in other words,
9 years from your voice or your mouth. Also
10 talking of that one advanced flight you
11 mentioned, would that advancing flight give any
12 kind of positive or negative effect on the
13 operation, for example? Can you think of any
14 positive advantages or disadvantages of having
15 advancing the flight schedule?

16 Then Dr. Tachikawa said in answering that
17 question as follows:

18 Speaking of the exact years of the launches of those three
19 flights for JEM, as I said earlier, we will have
20 the eighth, ninth, and twelfth flights to launch
21 those modules, and the flight eighth, that will
22 be launched in 2007, and the ninth and the

1 twelfth flights are scheduled to be in 2008. And
2 knowing that the launch schedule is established,
3 we would like to start preparation for a steady
4 making the progress in the utilizing that module
5 for experiments. You asked if there is any
6 advantages or disadvantages by advancing the
7 flight launch schedule, but for the time being, I
8 don't see any disadvantage nor advantage. As
9 long as that the schedule is adhered to, we would
10 like to make steady progress in utilizing that
11 Japanese module for experiments.

12 MODERATOR: I want to ask reporters for any
13 questions on the configuration or assembly sequence, let's
14 hold off until you receive the documents. That way, you
15 don't waste your question on something that we really can't
16 get into the details right now until you get the
17 information. So let's do that. If you have a general
18 question, let's focus on that for this particular press
19 conference.

20 Okay. I believe we have another question from
21 Headquarters. Let's go ahead and go to The Washington Post
22 or the New York Times.

1 QUESTIONER: Warren Leary with the New York Times
2 For Mr. Perminov and Mr. Griffin. Mr. Perminov,
3 what happens to the Russian segments after 2015? Where
4 will you get your power at that point? And for I guess Mr.
5 Griffin or later Mr. Gerstenmaier, does this mean that all
6 four major power units on the Space Station have to be put
7 up, and is there a possibility that even with all four full
8 configuration power units, the Space Station is going to
9 have a problem with enough power?

10 MR. PERMINOV: [through interpreter] Thank you.

11 One of today's proposals which I've made, we have
12 considered utilizing the Station beyond the year 2015, and
13 actually by that time, it will be clearer what will be the
14 role of NASA and other partners in that program, what will
15 be the technical status of those programs and where we will
16 all be by that year.

17 So, if NASA decides to leave the program after
18 2015 and, however, if all the modules and hardware is in
19 place, technically it will still be feasible to provide
20 power to the modules.

21 However, it is hard to say because each year
22 brings corrections to the program. So right now, we are

1 all looking forward to the second flight of the Shuttle
2 after the resumption of flights, and we will see after that
3 how the program progresses into the future.

4 Thank you.

5 ADMINISTRATOR GRIFFIN: I am not really going to
6 add to Mr. Perminov's remarks. I think it's a matter of
7 speculation as to what the program will do in 2016 and
8 afterward. That is 10 years from now.

9 The efforts I have are focused on getting the
10 Space Station assembled and in safely flying the Shuttle
11 while we assemble the Station, and then we will move on
12 from there.

13 MODERATOR: All right. One last question from
14 Headquarters. I believe it is Guy Gugliotta from The
15 Washington Post.

16 QUESTIONER: Yes. For Mike Griffin, Mike, could
17 you give us your latest estimate on the likelihood of the
18 Shuttle next flying in May, and can you talk in a little
19 bit of detail on how much more detail in Shuttle flights
20 you can handle before you have to start dropping flights?

21 ADMINISTRATOR GRIFFIN: We are working a schedule
22 as of today that fits with the last part of the May window,

1 and we are pressing hard to make it, but we are not
2 pressing so hard that we would do something silly. We are
3 trying to be -- and we believe we are being -- aware of
4 technical considerations in preparing for flight.

5 Whether we fly in May or fly in July 6 weeks
6 later is, from the point of view of the number of flights
7 remaining this year and from the overall assembly
8 sequences, essentially irrelevant, except that it is always
9 better to do things sooner rather than later.

10 We expect to get three flights in this year, but
11 we can manage just fine if it's only two. We have
12 substantial schedule slack at this point, almost a full
13 year of schedule slack, in terms of the number of flights
14 required to complete the Station. So we would have to have
15 substantial difficulties that we do not now envision in
16 maintaining our flight rate in order to start any
17 consideration of contingency plans.

18 MODERATOR: All right. That wraps up our
19 questions from Headquarters.

20 Now let's go to Johnson Space Center. I believe
21 Mark Carreau of the Houston Chronicle.

22 QUESTIONER: Thanks. It is Mark Carreau from the

1 Houston Chronicle.

2 I have a question and a follow for Dr. Griffin
3 and perhaps others if necessary, but how do the changes you
4 have made today satisfy or improve the Space Station
5 picture? What is it you have done by moving up the labs
6 that benefits the Space Station?

7 ADMINISTRATOR GRIFFIN: Mark, I think everyone is
8 focusing on, you know, "moving up the labs"
9 inappropriately. There has been some minor adjustment of
10 the sequence.

11 What you are seeing today as the output of this
12 Heads of Agency meeting is the result of 10 months of work
13 between the United States and our partners, following my
14 comments immediately after being confirmed as Administrator
15 that a 28-flight Shuttle assembly and utilization sequence
16 was not possible within the remaining lifetime of the Space
17 Shuttle Program, that we simply did not have the flights in
18 the system to be able to do it.

19 Not everyone agreed with that judgment, and I
20 regret that, but that was my judgment, and so we focused on
21 redefining the Station assembly sequence in fact to
22 concentrate on assembly, and we are largely deferring

1 utilization and we are paring logistics to the bone. We
2 don't like that, but confronted with a choice between
3 having a high confidence to be able to complete the
4 assembly of the Station and deferring utilization or
5 utilizing it heavily as we built it and possibly not
6 finishing, we chose the former course.

7 Now, as a result of taking that course of action,
8 meaning to assembly now and utilize largely later, there
9 has been some adjustment to the flight sequence regarding
10 the labs, and you will, as we have said repeatedly, get to
11 see that. We are not hiding it from you. We just don't
12 have the graphic to give you at this moment, but you will
13 have it shortly.

14 The main thing that you are seeing here today is
15 not adjustments in the flight sequence, but the decision to
16 put together an assembly sequence that allows us to have
17 very high confidence that we will finish the Space Station
18 assembly by the time the Shuttle must be retired.

19 MODERATOR: All right. Mark, I believe you have
20 a follow-up?

21 ADMINISTRATOR GRIFFIN: Or maybe not.

22 QUESTIONER: Brief follow. Do the plans call for

1 the Shuttle to do crew transfers, or will that go to the
2 Soyuz or a combination as in the past?

3 ADMINISTRATOR GRIFFIN: Well, obviously a
4 combination because the very next flight is bringing a crew
5 member up on Station, and we will have a crew of three
6 following 121.

7 MODERATOR: All right. That wraps us up at
8 Johnson.

9 Let's go to Marshall for one question, and then
10 we will come back to Kennedy Space Center for a couple of
11 questions before we end the press conference.

12 QUESTIONER: I am with [inaudible] 58 News here
13 in Huntsville, Alabama, over at Marshall Space Flight
14 Center.

15 This is going back over to the May launch date,
16 that window, and my question is for Dr. Griffin. I
17 understand the external tank just arrived at Kennedy just a
18 few days ago. There were some changes made. How confident
19 are we that some of those changes that were made will swing
20 us into making that May window?

21 ADMINISTRATOR GRIFFIN: The external tank did
22 arrive yesterday. If I wasn't being tied up with this

1 press conference, I'd be able to go over and take a look at
2 the hardware.

3 [Laughter.]

4 ADMINISTRATOR GRIFFIN: We do plan to make some
5 changes to the foam configuration on the ice frost ramps to
6 minimize the amount of foam which could fall off the ice
7 frost ramps while still making sure that we keep the outer
8 surface above the freezing temperature, so that we don't
9 accumulate ice.

10 The details of those either have been or soon
11 will be made available to you. We don't see that as a
12 schedule driver, quite frankly.

13 What we are doing that may -- and I will say
14 "may" and I will say again may affect the schedule is
15 subjecting these changes to wind tunnel testing before we
16 make them, and depending on the results of the wind tunnel
17 testing, we might decide that the suggested changes are a
18 good idea, in which case we are solidly on track, or we
19 might decide that they are a bad idea, in which case we
20 won't make the changes, but we won't necessarily know
21 exactly what it is that we do want to do, and then that
22 could become a schedule driver.

1 We will let you know when we know, but right now,
2 our processing sequence is aiming at May because we want to
3 fly expeditiously. We want to get back into operations.

4 MODERATOR: That will wrap up our questions from
5 around the field centers.

6 Let's come back now to Kennedy Space Center. We
7 will go to Mike.

8 QUESTIONER: Hi. Mike Snyder, Associated Press.

9 I had a question for Mr. Griffin. As you know,
10 the House Science Committee had a hearing this morning
11 which they talked about money that was being taken away
12 from science programs to make up for the budget shortfall
13 for the Shuttle program, and a couple experts described
14 NASA as at a "tipping point" where budgets through 2010
15 could do major damage to science research in the United
16 States. What is your reaction to that assessment, and do
17 you believe NASA is at a tipping point?

18 ADMINISTRATOR GRIFFIN: I think those assessments
19 are wrong.

20 We are trimming the rate of growth in our science
21 programs to a 1-percent increase over the next 5 years,
22 counting fiscal '07, after which, again, we would project

1 that it could begin to rise in accordance with whatever top
2 line the agency has provided.

3 That does result in the delay of several missions
4 and the cancellation of a couple of small ones, and again,
5 you know, we regret that. We would obviously like to be
6 able to do more rather than less. We think the Science
7 Program has had a tremendous history of returning great
8 results, but we are in a period in history, following the
9 loss of and the recovery from the Columbia accident where
10 the Human Space Flight Program to which we are also
11 committed needs help.

12 We are trying to fly out the Shuttle in an
13 orderly and disciplined way to retirement. We are trying
14 to use that asset while we have it to complete the assembly
15 of the Station in concert with our partners who have
16 invested much, and frankly, those activities are activities
17 which I have prioritized ahead of a more robust growth in
18 science.

19 We also seek to replace our human space flight
20 capability, and that too must be done in a timely way.

21 The ultimate choice is not whether or not the
22 United States is going to have a great space program. We

1 are. The fact is that something must be delayed. Before
2 accepting any delays in our Science Program, as I have said
3 repeatedly, we delayed the Crew Exploration Vehicle, the
4 Shuttle replacement system, to the maximum extent that I
5 thought prudent. At some point, we had to say we are done
6 delaying the Crew Exploration Vehicle, and we will have to
7 delay other things, and that's what has been done in our
8 Science Program, but to describe that as a tipping point is
9 a reaction that is almost hysterical. It is beyond any
10 reasonable assessment of the quality of our Science
11 Program.

12 MODERATOR: Right up front.

13 QUESTIONER: Yes. Stefano Coledan, Time magazine
14 and for Dr. Griffin and Mr. Dordain.

15 Dr. Griffin, which were the most difficult
16 decisions you had to make in order to all agree during this
17 couple days of meetings? What was the -- was there any
18 discussion that was pretty lively or --

19 ADMINISTRATOR GRIFFIN: I don't believe that
20 there have been any difficult decisions to make. There
21 have been obvious decisions to make, which are painful to
22 implement. Things which are painful to implement often are

1 deferred, but we are at a point in planning the fly-out of
2 the Shuttle and the Station assembly sequence where those
3 decisions had to be made.

4 I think it was a very obvious decision to design
5 an assembly sequence which would focus on the assembly of
6 the Station, so that by 2010, we would have completed Space
7 Station, and to defer the full utilization of that Station
8 until afterwards as opposed to taking a chance, as I said
9 earlier, by trying to cram more flights into the sequence,
10 taking a chance of not finishing the assembly. I think
11 that was a very obvious choice.

12 As with the comments I just made about deferring
13 some science programs in order to finish the Space Station,
14 these are painful choices, but the painfulness of the
15 choice does not render it less obvious.

16 QUESTIONER: I understand that in Kourou, you are
17 building a launch pad for Soyuz rockets. Does the European
18 Space Agency intend to purchase Soyuz vehicles and launch
19 them from Kourou with astronauts on board?

20 MR. DORDAIN: For the time being, there is no
21 plan to launch any astronaut from Kourou. We are putting
22 in cooperation with Roskosmos -- we are building up a

1 launch pad in Kourou for launching Soyuz, but for the time
2 being is just for launching satellites.

3 Now never say "never." We shall see, but for the
4 time being, there is no plan.

5 QUESTIONER: David Waters from Central Florida
6 News 13.

7 For Mike Griffin, you've been here a while now at
8 the agency. You've gotten a huge grasp on everything that
9 is going on, the inner workings. What do you think is the
10 toughest challenge that you face ahead for the agency and
11 that the agency in general and the workers face here?

12 ADMINISTRATOR GRIFFIN: Well, I don't have any
13 difficult challenges because I am not doing any of the real
14 work. The guys who are doing the real work are out there
15 today wrestling the external tank into a holding cell, so
16 that they can work on it and later mate it to the Shuttle.

17 So our challenges as an agency are to basically do what we
18 have said we can do.

19 When we look at our own statistics maintained
20 internally with regard to our Shuttle operational sequence,
21 over 114 flights, as of this April 12th, that equates to an
22 average rate of 4.56 flights per year for 25 years, and

1 that counts two accidents and the recovery time from those
2 as well as numerous other stand-downs for things like flow
3 liners and wire bundles and stuff like that, that is lost
4 in the recesses of my memory, but which I am sure you can
5 dredge up. So, given all of those things, we have had that
6 flight rate.

7 Now, if we can maintain that flight rate, our
8 average over 25 years for the next 5 years, 5 fiscal years,
9 we will easily complete the Station. So that is our
10 challenge, to do what we have done in the past and to do
11 what we say we can do, and I really am -- I will be
12 watching with you because the people who are on the line to
13 accomplish those jobs, you know, turning the wrenches,
14 writing the code, sitting on the consoles, those are the
15 people who have the work to do.

16 MODERATOR: All right. Out of all reporters, I
17 think we have one reporter that hasn't asked a question,
18 and all right, Todd, we will go to you as well. So let's
19 go ahead.

20 QUESTIONER: Rory O'Neal with Metro Radio
21 Networks.

22 From the panel, we have heard terms like "within

1 budget" and "meets the needs" and "realistic." Is this
2 Space Station in 2010 if everything goes on schedule as
3 completed? Is this the Space Station and the scientific
4 platform that was envisioned to do the robust and
5 aggressive kind of research that was planned 20, 30 years
6 ago?

7 ADMINISTRATOR GRIFFIN: Yes, it's the same Space
8 Station. As you will see when you see the sequence, you
9 know, the hardware all goes up. For about the third time,
10 what we are doing is we are deferring the utilization of
11 that Station largely, largely deferring the utilization of
12 that Station while we concentrate on building it. Our
13 earlier plans, which were better plans frankly, allowed us
14 to utilize it as we built it to a much greater extent than
15 we can now accommodate, and that is the difference that you
16 are seeing, but the end product is very much as we have
17 envisioned it.

18 MODERATOR: Todd?

19 QUESTIONER: Todd Halberson from Florida Today
20 for Mike Griffin.

21 Mike, can you give us a sense of how -- what the
22 spare situation will be on Station at the end of assembly,

1 whether or not you will be able to leave gyroscopes and
2 other critical hardware up there for the years beyond 2010?

3 ADMINISTRATOR GRIFFIN: We are looking at the
4 pre-positioning of spares, using whatever payload
5 capability the Shuttle fleet will have over these assembly
6 flights. We don't have final answers yet.

7 We are, of course, also, as you well know,
8 looking at the creation of commercial logistics capability
9 through the COTS Program, commercial orbital whatever
10 services, what I keep calling "commercial cargo and crew,"
11 so that I don't have to remember an acronym.

12 Our international partners also are bringing to
13 bear with HTV from JAXA and ATV from ESA -- are bringing to
14 bear substantial resupply capability.

15 Our Russian partners have steadfastly sustained
16 the Station while the Shuttle has been down. They too have
17 capability. This truly is an international product led by
18 the United States, but an international project that I
19 think we can all be proud of, and we will find a way to
20 make sure that the logistics and spares issues are dealt
21 with appropriately.

22 MODERATOR: All right. We have one last question

1 here. Dan?

2 QUESTIONER: Dan Billow again from WESH TV for
3 the ESA Director-General.

4 Would you please talk a little bit about the ATV
5 and its schedule and capabilities? I believe it was
6 supposed to have been launched last year. Correct me if I
7 am wrong. And also, how many Shuttle flights do you
8 understand are on the table here between now and 2010?

9 MR. DORDAIN: For the number of Shuttle flights,
10 I think it is much better to ask Mike Griffin because I am
11 not in charge of the Shuttle flight.

12 You will see the assembly sequence, and as Mike
13 already said, the assembly sequence is based on 16 Shuttle
14 flights. For the ATV, the plan is flowing. We plan to
15 complete the development and fully qualify on ground the
16 ATV by the end of the year, to ship it to the Kourou base
17 beginning of next year for a launch which is today planned
18 for May 2007, but obviously the date of the launch of ATV
19 is not [inaudible] from the assembly sequence because the
20 ATV must arrive at a time when, number one, it is possible
21 to go to the Space Station and, number two, this is useful
22 for the Space Station.

1 So this is today the plan. The cargo that the
2 ATV will bring to the Space Station is around 10 metric
3 tons of cargo.

4 MODERATOR: All right. That is going to conclude
5 today's Heads of Agency news conference. I appreciate
6 everybody's involvement and questions.

7 As I mentioned, we will have the updated diagram
8 of the configuration and the assembly sequence available
9 shortly. For more information, please go to our website at
10 www.nasa.gov.

11 Thank you very much.

12 [End of NASA Heads of Agency ISS News Conference
13 held on March 2, 2006.]

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